

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 1. (currently amended) A method for rendering, comprising:
2 establishing rendering resources at a user site;
3 transmitting a rendering request from the user site to a rendering service, the user
4 site being in communication with the rendering service over a network, the rendering request
5 comprising identifiers of rendering resources currently available at the user site required for a
6 performing a rendering task;

7 maintaining at the rendering service a resource pool comprising rendering
8 resources from at least one previous rendering request from the user site;

9 comparing the rendering resources in the resource pool at the rendering service
10 with the identifiers of rendering resources currently available at the user site; and

11 uploading a given required resource from the user site to the rendering service
12 only if there is not a match between the resource pool and the user site for that required resource.

1 2. (original) The method of claim 1, wherein the user site and the rendering
2 service are located at different physical sites, and wherein the network comprises the Internet.

1 3. (original) The method of claim 1, wherein the user site and the rendering
2 service are co-located at the same physical site, and wherein the network comprises a local area
3 network.

1 4. (original) The method of claim 1, the rendering resources being uploaded
2 to the rendering service in a raw format, the method further comprising:
3 at the rendering service, generating the raw rendering resources to produce
4 generated rendering resources; and
5 providing the generated rendering resources to a rendering engine.

1 5. (original) The method of claim 4, the rendering resources comprising
2 scene description files, further comprising the step of manipulating a modeling application such
3 that said scene description files comprise at least one static scene description file and at least one
4 dynamic scene description file, whereby a statistical upload volume of scene description data is
5 reduced.

1 6. (original) The method of claim 4, further comprising:
2 storing generated rendering resources corresponding to previous rendering
3 requests in the resource pool; and
4 subsequent to said comparison step, generating a given raw resource into a
5 generated rendering resource only if that raw resource required uploading for the rendering task.

1 7. (original) The method of claim 4, further comprising:
2 transmitting a session control file comprising the identities of each raw rendering
3 resource file required for the rendering task;
4 transmitting at least one resource generation control file comprising associations
5 among the raw rendering resource files and a plurality of generated rendering resource files
6 corresponding thereto; and
7 for each raw rendering resource file, performing the steps of (i) forward-mapping
8 that raw rendering resource file onto a set V of dependent generated rendering resource files
9 using information derived from the resource generation control files, (ii) reverse-mapping each
10 member of the set V onto a set W of raw rendering resource files using information derived from
11 the resource generation control files; and (iii) marking that generated rendered resource file for
12 generation if (a) it does not exist in the resource pool or (b) any of the set W of raw rendering
13 resource files required uploading for the rendering task.

1 8. (currently amended) A network based rendering method, comprising:
2 establishing rendering resources at a user site;

3 transmitting a rendering request from the user site to a rendering service, the user
4 site being in communication with the rendering service over a network, the rendering request
5 comprising identifiers of rendering resources currently available at the user site required for a
6 performing a rendering task;

7 maintaining at the rendering service a resource pool comprising rendering
8 resources from at least one previous rendering request from the user site;

9 comparing the rendering resources in the resource pool at the rendering service
10 with the identifiers of rendering resources currently available at the user site; and

11 uploading a given required resource from the user site to the rendering service
12 only if there is not a match between the resource pool and the user site for that required resource;

13 wherein said rendering resources include scene description files; and wherein said
14 step of establishing rendering resources comprises the step of manipulating a modeling
15 application such that said scene description files comprise at least one static scene description
16 file and at least one dynamic scene description file, whereby a statistical upload volume of scene
17 description data is reduced in that the static scene description files will statistically be required
18 for a lesser number of frames of the rendering task than the dynamic scene description files.

1 9. (original) The method of claim 8, wherein the user site and the rendering
2 service are located at different physical sites, and wherein the network comprises the Internet.

1 10. (original) The method of claim 8, wherein the user site and the rendering
2 service are co-located at the same physical site, and wherein the network comprises a local area
3 network.

1 11. (original) The method of claim 8, the rendering resources further
2 comprising shader files, texture files, or procedural files, the rendering resources being uploaded
3 to the rendering service in a raw format, the method further comprising:

4 at the rendering service, generating the raw rendering resources to produce
5 generated rendering resources; and

6 providing the generated rendering resources to a rendering engine.

1 12. (original) The method of claim 11, further comprising:
2 storing generated rendering resources corresponding to previous sessions in the
3 resource pool; and
4 subsequent to said comparison step, generating a given raw resource into a
5 generated rendering resource only if that raw resource required uploading for the rendering task.

1 13. (original) The method of claim 11, further comprising:
2 transmitting a session control file comprising the identities of each raw rendering
3 resource file required for the rendering task;
4 transmitting at least one resource generation control file comprising associations
5 among the raw rendering resource files and a plurality of generated rendering resource files
6 corresponding thereto; and
7 for each raw rendering resource file, performing the steps of (i) forward-mapping
8 that raw rendering resource file onto a set V of dependent generated rendering resource files
9 using information derived from the resource generation control files, (ii) reverse-mapping each
10 member of the set V onto a set W of raw rendering resource files using information derived from
11 the resource generation control files; and (iii) marking that generated rendered resource file for
12 generation if (a) it does not exist in the resource pool or (b) any of the set W of raw rendering
13 resource files required uploading for the rendering task.

1 14. (currently amended) A rendering method, comprising:
2 identifying rendering resources at a user site;
3 transmitting a rendering request from the user site to a rendering service, the user
4 site being in communication with the rendering service over a network, the rendering request
5 comprising identifiers of rendering resources currently available at the user site required for a
6 performing a rendering task;
7 maintaining at the rendering service a resource pool comprising rendering
8 resources from at least one previous rendering request from the user site;

9 comparing the rendering resources in the resource pool at the rendering service
10 with the identifiers of rendering resources currently available at the user site;
11 storing generated rendering resources corresponding to previous rendering
12 requests in the resource pool; and
13 determining whether to generate a given raw resource into a generated rendering
14 resource based on a result of the comparing step.

1 15. (original) A rendering method according to claim 14, further comprising
2 uploading a given required resource from the user site to the rendering service only if the
3 comparing step determines there is not a match between the resource pool and the user site for
4 that required resource.

1 16. (original) A rendering method according to claim 15, the rendering
2 resources being uploaded to the rendering service in a raw format, the method further
3 comprising:

4 at the rendering service, generating the raw rendering resources to produce
5 generated rendering resources; and
6 providing the generated rendering resources to a rendering engine.

1 17. (original) A method according to claim 14, the rendering resources
2 comprising scene description files, further comprising the step of manipulating a modeling
3 application such that said scene description files comprise at least one static scene description
4 file and at least one dynamic scene description file.

1 18. (currently amended) A method for rendering, comprising:
2 establishing rendering resources at a user site;
3 transmitting a rendering request from the user site to a rendering service, the user
4 site being in communication with the rendering service over a network, the rendering request
5 comprising identifiers of rendering resources currently available at the user site required for a
6 performing a rendering task;

7 maintaining at the rendering service a resource pool comprising rendering
8 resources from at least one previous rendering request from the user site;
9 comparing the rendering resources in the resource pool at the rendering service
10 with the identifiers of rendering resources currently available at the user site;
11 uploading a given required resource from the user site to the rendering service
12 only if there is not a match between the resource pool and the user site for that required resource,
13 the rendering resources are uploaded to the rendering service in a raw format;
14 at the rendering service, generating the raw rendering resources to produce
15 generated rendering resources;
16 providing the generated rendering resources to a rendering engine;
17 storing generated rendering resources corresponding to previous rendering
18 requests in the resource pool;
19 subsequent to said comparison step, generating a given raw resource into a
20 generated rendering resource only if that raw resource required uploading for the rendering task.

1 19. (currently amended) A computer program product for use in carrying out
2 a network based rendering service, comprising:
3 computer code for establishing rendering resources at a user site;
4 computer code for transmitting a rendering request from the user site to a
5 rendering service, the user site being in communication with the rendering service over a
6 network, the rendering request comprising identifiers of rendering resources currently available
7 at the user site required for a performing a rendering task;
8 computer code for maintaining at the rendering service a resource pool
9 comprising rendering resources from at least one previous rendering request from the user site;
10 computer code for comparing the rendering resources in the resource pool at the
11 rendering service with the identifiers of rendering resources currently available at the user site;
12 and

13 computer code for uploading a given required resource from the user site to the
14 rendering service only if there is not a match between the resource pool and the user site for that
15 required resource.

1 20. (original) The computer program product of claim 19, the rendering
2 resources being uploaded to the rendering service in a raw format, the computer program product
3 further comprising:

4 computer code at the rendering service for generating the raw rendering resources
5 to produce generated rendering resources; and

6 computer code for providing the generated rendering resources to a rendering
7 engine.

1 21. (original) The computer program product of 20, the rendering resources
2 comprising scene description files, the computer program product further comprising computer
3 code for producing the scene description files, wherein said computer code for producing the
4 scene description files is capable of being manipulated such that the scene description files
5 comprise at least one static scene description file and at least one dynamic scene description file,
6 whereby a statistical upload volume of scene description data may be reduced in that the static
7 scene description files will statistically be required for a lesser number of frames of the rendering
8 task than the dynamic scene description files.

1 22. (original) The computer program product of claim 20, further comprising:
2 computer code for storing generated rendering resources corresponding to
3 previous sessions in the resource pool; and
4 computer code for, subsequent to said comparison step, generating a given raw
5 resource into a generated rendering resource only if that raw resource required uploading for the
6 rendering task.

1 23. (original) The computer program product of claim 20, further comprising:

2 computer code for transmitting a session control file comprising the identities of
3 each raw rendering resource file required for the rendering task;
4 computer code for transmitting at least one resource generation control file
5 comprising associations among the raw rendering resource files and a plurality of generated
6 rendering resource files corresponding thereto; and
7 computer code for performing the steps of, for each raw rendering resource file,
8 (i) forward-mapping that raw rendering resource file onto a set V of dependent generated
9 rendering resource files using information derived from the resource generation control files, (ii)
10 reverse-mapping each member of the set V onto a set W of raw rendering resource files using
11 information derived from the resource generation control files; and (iii) marking that generated
12 rendered resource file for generation if (a) it does not exist in the resource pool or (b) any of the
13 set W of raw rendering resource files required uploading for the rendering task.

1 24. (original) The computer program product of claim 19, wherein the user
2 site and the rendering service are located at different physical sites, and wherein the network
3 comprises the Internet.

1 25. (original) The computer program product of claim 19, wherein the user
2 site and the rendering service are co-located at the same physical site, and wherein the network
3 comprises a local area network.